



## ISPF Hidden Treasures and New Features



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## Hidden Treasures and New Features in ISPF

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## Hidden Treasures and New Features in ISPF...

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- Display System & User Id
- ISPF in a Web Browser (Using z/OSMF)
- ISPF Client Gateway – ISPF from the Internet
- ISRDDN Utility
- User Command Tables
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- ISRDTLCV macro

## DSLIS

- **DSLIS** *personal\_list\_name* | *pattern*
  - If a list name exists by that name, a data set list will be built based on the entries in the list
  - If a list name does not exist, the parameter is treated as a pattern
- **APPEND** command from within Data Set List
  - Adds entries to the displayed list
  - specify a personal list name or a pattern
- **REFRESH** command from within Data Set List
  - Refreshes display to original list filter criteria
- **EXCLUDE** command and X line command from within Data Set List
  - Excludes data sets displayed in list
  - Shadow line displayed

## New Data Set List Commands - z/OS 1.2

### MEMBER command

- allows the partitioned data sets in the list to be searched for a specific member name or pattern
- Syntax: `Member string [X|EX|NX][RECALL1|RECALL2]`
- Message field identifies data sets containing the member(s)

### SRCHFOR command

- Invokes SuperC to search the listed data sets for strings
- Syntax: `SRCHFOR [string]`
- Displays panel used to specifying options for SuperC
- Message field identifies data sets containing the string
- SuperC output written to data set  
(default: `userid.SRCHDSL.LIST`)

## Data Set List Enhancements

### Enhanced SORT command (z/OS 1.7)

- Provides ability to sort a data set list in ascending or descending order
- Syntax: `SORT major-field [A|D] [minor-field] [A|D]`

### Display Total Tracks Value (z/OS 1.9)

- New **Display Total Tracks** option added to the Data Set List Utility entry panel
- If selected, an additional header line showing the total tracks used by the data sets is displayed with the **Space** and **Total** views
- Pop-up window showing data collection progress displayed when calculating total tracks for a list of 50 or more data sets

## Data Set List Enhancements. . .

### ▪Block Line Commands (z/OS 1.10)

- Allows Data Set List line commands to be entered in blocks
- A block of line commands is marked by entering two forward slash characters (//) at the start and end of the block
- The required line command is entered on the first or last line of the block, immediately following the two forward slash characters
- All line commands, including TSO commands, Clists and REXX execs can be executed as block commands

### ▪Include PREFIX in Dsname Level (z/OS 1.11)

- New **Prefix Dsname Level** option added to the Data Set List Utility entry panel
- If selected, ISPF will add the TSO prefix (if the user's TSO profile has PREFIX defined) as the first qualifier if the Dsname Level entered is not enclosed in quotes

## Data Set List Enhancements. . .

### ▪Allocate Line Command (z/OS 1.13)

- New **AL** line command can be used to allocate a new data set
- New data set name can be specified with the AL line command
- If AL is entered against a deleted data set and a name is not specified ISPF will use the name of the deleted data set
- When AL is entered against an existing data set the user has the option to:
  - Create the data set using the attributes of the existing data set
  - Specify the attributes of the data set on the Allocate New Data Set panel

## New Member List Commands - z/OS 1.5

### ▪SRCHFOR command

- Invokes SuperC to search the listed members for strings
- Syntax: `SRCHFOR [string]`
- Displays panel used to specifying options for SuperC
- PROMPT column identifies members containing the string
- SuperC output written to data set  
(default: `userid.SRCHML.LIST`)

### ▪SORT PROMPT command

- Sorts members with messages in the PROMPT column to the top of the member list
- Use after `SRCHFOR` command to group all members containing *string* at the top of the member list

## Member List Enhancements

### ▪Enhanced SORT command (z/OS 1.7)

- Provides ability to sort a member list in ascending or descending order
- Syntax: `SORT major-field [A|D] [minor-field] [A|D]`

### ▪New FILTER command (z/OS 1.8)

- Used to display only those members having an attribute matching a specified value
- Syntax: `FILTER [field operator value]`
  - field* member list column name
  - operator* EQ, NE, LE, LT, GE, or GT
  - value* the comparison value
- Member List SRCHFOR command also enhanced to optionally display only those members containing the SRCHFOR string

## Member List Enhancements. . .

- **New | line command for enhanced member list (z/OS 1.13)**
  - Used to display panel showing the ISPF statistics for a member
  - Introduced to provide a display of extended line count statistics for a member with extended statistics
    - is not restricted to members that have extended line count statistics

## Edit COMPARE Command

- Syntax: **COMPARE** [**member** | **data\_set\_name** | **NEXT** | \* [**X**] [**SYSDIN**]]
- Uses SuperC APIs to compare to data sets or members
- Changes are highlighted depending on if the change is new to the source (member or data set where COMPARE command was issued), only in the target, or common
- **NEXT** compares next member in hierarchy of ISPF library
- **X** excludes common lines except for a few around differences
- **SYSDIN DD** has ac

only in "target" (NEXT in this case) MD to "make data"

new in "source"

common

common lines excluded by X parameter

```

VIEW      PDFDEV.STG.GML(ISPCMDS) - 01.03      Changes are shown
Command ==> _____ Scroll ==> CSR
000052      altdescr="CMDE"
=====      <cmdact action="SELECT PGM(ISPCCMDE)"
.OAAAA      <cmdact action="SELECT PGM(ISPCCMDE) SUSPEND">
000054
000055      <:----- COLOR ----->
000056      <cmd name=COLOR
000057      altdescr="INVOKE GLOBAL COLOR CHANGE UTILITY">
000058      <cmdact action=
----- 350 Line(s) not Displayed
000409      altdescr="Turn ISPF/TSO GUI WINDOW ON or OFF">
000410      <cmdact action="SELECT PGM(ISPISH) PARM(TSOGUI,&ZPARM)">
  
```

## Edit COMPARE Enhancement (z/OS 1.11)

- The SYSIN keyword on the COMPARE command is enhanced to support a sub-parameter

- User can specify the SuperC process statements data set name as a sub-parameter of the SYSIN keyword

Syntax: **SYSIN(dsn)**

- Alternatively, the user can request the display of a pop-up panel where the SuperC process statements data set name can be entered

Syntax: **SYSIN(/)**

## New Edit Primary Commands - z/OS 1.6

### •HIDE command

- Removes excluded line messages from the Edit/View display
- Line number underscored to indicate "hidden" line(s)
- Syntax: **HIDE X**
- **RESET** primary command has **HIDE** option to allow redisplay of excluded line messages
  - Syntax: **RESET HIDE**

### •COLS command

- Causes a columns line to be displayed at the top of each Edit/View data screen (i.e. stays with the Edit/View display)
- Syntax: **COLS [ON|OFF]**

## Other Edit Enhancements

### ▪ UNDO after SAVE (z/OS 1.9)

- Allows reversal of edit changes made prior to SAVE commands during the current edit session
- New KEEP option added to the edit SETUNDO command
  - Syntax:

```

                                +-STORAGE-+
>>-----SETUNDO-----+-----><
      +-SETU-----+ +-RECOVER- |
                                +-ON----- |
                                +-OFF----- |
                                +-KEEP-----+

```

- Where:

**KEEP** Has the same effect as **STORAGE** and also prevents the **SAVE** command from clearing the UNDO buffers in storage

## Other Edit Enhancements. . .

### ▪ Multiple Targets for MOVE/COPY (z/OS 1.10)

- Suffix of K (keep) can now be used with MOVE/COPY destination line commands **A**, **B**, **O** and **OO**
  - Enter **AK**, **BK**, **OK**, or **OOK** line commands to indicate a multiple target MOVE/COPY command
  - Enter 'final' destination line command (**A**, **B**, **O** or **OO**) to initiate the 'multiple target' MOVE/COPY
  - 'Final' destination must be after the line where the **AK**, **BK**, **OK**, or **OOK** command was entered



## Other Edit Enhancements. . .

### ▪New Edit Line Commands for HEX Display (z/OS 1.11)

- New edit line commands to display selected lines in hexadecimal format:

**HX**                      display a single line in hexadecimal format

**HXX**                     display a block of lines in hexadecimal format

- The **HX** and **HXX** line commands act as a toggle by switching a line's display format between normal and hexadecimal format

## Other Edit Enhancements. . .

### ▪Support for User Defined Line Commands (z/OS 1.13)

- Support has previously been available by using the unsupported LMAC tool
- User defined line commands and the edit macros they invoke are defined in an ISPF table
  - The ISPF Table Utility (ISPF option 3.16) is modified to assist with defining the user line command table
- New line command table input field on the edit and view entry panels
  - When the line command table is specified the line commands defined in the table are able to be used during the edit session
- The EDIT and VIEW services also allow a line command table to be passed by the caller

## Connect Without GUI

### ▪SETTINGS

- Workstation pulldown (or **GUIINIT**)
  - Workstation connection
  - Without GUI display
  
- Allows workstation commands
  - FILEXFER**
  - Edit on workstation
  - SELECT WSCMD**

## z/OS UNIX Directory List Utility (z/OS 1.8)

- Available as ISPF option 3.17
- Provides most of the functions supported by the ISHELL utility

```

Menu Utilities Options Help
-----
z/OS UNIX Directory List Utility
Option ==>>
blank Display directory list          P Print directory list
Pathname . . . . /u/pxanduk

Enter "/" to select option
/ Confirm File Delete
/ Confirm Non-empty Directory Delete

When the directory list is displayed, enter either:
"/" on the directory list line command field for the command prompt pop-up,
an ISPF line command, the name of a TSO command, CLIST, or REXX exec, or
"=" to execute the previous command.

Time zone WAT-8 is used to calculate the displayed date and time values.
F9=Swap      F10=Actions  F12=Cancel

```

## z/OS UNIX Directory List Utility. . .

- Horizontal scrolling via the RIGHT and LEFT primary commands
- Column order and size can be customized via Options pull-down

Command	Filename	Message	Type	Permission	Audit	Ext	Fmat	Owner
.			Dir	rwxr-xr-x	fff--			IBMUSER
..			Dir	rwxr-xr-x	fff--			IBMUSER
.nfsc			File	rw-r--r--	fff--	--B----		IBMUSER
ant.conf			File	rwxrwxrwx	fff--	--B----		IBMUSER
bpa			Dir	rwxr-xr-x	fff--			IBMUSER
cmx			Dir	rwxr-xr-x	fff--			IBMUSER
dce			Dir	rwxr-xr-x	fff--			IBMUSER
dfs			Dir	rwxr-xr-x	fff--			IBMUSER
inetd.conf			File	rwxrwxrwx	fff--	--B----		IBMUSER
inetd.pid			File	rw-r--r--	fff--	--B----		IBMUSER
ioepdcf			Saml	rwxrwxrwx	fff--	--B----		IBMUSER
ldap			Dir	rwxr-xr-x	fff--			IBMUSER
licmgmt			Dir	rwxr-xr-x	fff--			IBMUSER
log			File	rw-rw-r--	fff--	--B----		IBMUSER
pkiserv			Dir	rwxr-xr-x	fff--	--B----		IBMUSER
profile			File	rwxr-xr-x	fff--	--B----		IBMUSER
security			Dir	rwxr-xr-x	fff--			IBMUSER
skrb			Dir	rwxr-xr-x	fff--			IBMUSER
spool			Dir	rwxr-xr-x	fff--			IBMUSER
utmpx			File	rw-r--r--	fff--	--B----		IBMUSER

F1=Help    F2=Split    F3=Exit    F4=Expand    F5=Rfind    F7=Up    F8=Down  
 F9=Swap    F10=Left    F11=Right    F12=Cancel

## z/OS UNIX Directory List Utility. . .

- Primary commands available:
  - **EDIT** - edit a file in the current directory
  - **FIND** - find a string within a filename
  - **LEFT** - scroll the directory list columns to the left
  - **LOCATE** - locate a directory list entry based on the sort order
  - **REFRESH** - redisplay directory list with any changes that have occurred
  - **RESET** - redisplay list removing line commands and messages
  - **RIGHT** - scroll the directory list columns to the right
  - **SAVE** - write the directory list data to a data set
  - **SORT** - sort the directory list by the specified fields

## z/OS UNIX Directory List Utility. . .

- Line commands available:

- |                                       |  |
|---------------------------------------|--|
| ▪ <b>E</b> - edit a file              | ▪ <b>CO</b> - copy data out                |
| ▪ <b>B</b> - browse a file            | ▪ <b>CI</b> - copy data in                 |
| ▪ <b>N</b> - create a new file        | ▪ <b>I</b> - display attributes            |
| ▪ <b>L</b> - list a directory         | ▪ <b>MM</b> - modify mode fields           |
| ▪ <b>D</b> - delete a file            | ▪ <b>MX</b> - modify extended attributes   |
| ▪ <b>R</b> - rename a file            | ▪ <b>X</b> - execute a command             |
| ▪ <b>V</b> - view a file (z/OS 1.9)   | ▪ <b>MO</b> - Modify Owner (z/OS 1.11)     |
| ▪ <b>EA</b> - ASCII edit (z/OS 1.9)   | ▪ <b>MG</b> - Modify Group (z/OS 1.11)     |
| ▪ <b>VA</b> - ASCII view (z/OS 1.9)   | ▪ <b>MF</b> - Modify Format (z/OS 1.11)    |
| ▪ <b>RA</b> - REFLIST Add (z/OS 1.10) | ▪ <b>UA</b> - User Auditing (z/OS 1.11)    |
| ▪ <b>FS</b> - File System (z/OS 1.11) | ▪ <b>AA</b> - Auditor Auditing (z/OS 1.11) |
| ▪ <b>MA</b> - Modify ACLs (z/OS 1.13) |  |

## z/OS UNIX Support Enhancements. . .

- **Use ISPF Edit and Browse for z/OS UNIX Files (z/OS 1.9)**

- Edit/View/Browse **“Other”** Data Set Name fields support entry of z/OS UNIX pathnames
  - z/OS UNIX Directory List displayed when pathname for directory entered in the **“Other”** Data Set Name field
- z/OS UNIX pathname can be specified as an operand with the following edit primary and macro commands
  - COMPARE**
  - COPY**
  - CREATE**
  - MOVE**
  - REPLACE**
- **BROWSE**, **EDIT**, and **VIEW** services enhanced to support processing of z/OS UNIX files
- **FILEXFER** service enhanced to support the upload and download of z/OS UNIX regular files
- Personal data set lists enhanced to support the saving and retrieval of z/OS UNIX pathnames

## z/OS UNIX Support Enhancements. . .

### Support for Editing ASCII Data (z/OS 1.9)

- ASCII edit automatically invoked for z/OS UNIX files tagged with CCSID 819 (US ASCII)
- ASCII edit can be selected for z/OS UNIX files not tagged by either:
  - Selecting the **Edit ASCII data** option on the Edit/View Entry panel
  - Using the z/OS UNIX Directory List Utility (option 3.17) **EA** line command
- File tagged with CCSID of 819 when saved
- ASCII edit available with the EDIT and VIEW services by using the new **ASCII** keyword parameter

## New UDLIST Command – z/OS 1.10

- Used to display a z/OS UNIX Directory List (option 3.17) from any command line
- Syntax: **UDLIST** [*personal\_list\_name* | *pathname*]
- If a personal list name is provided, a directory list will be built based on the pathname entries in the list
- Alternatively, the pathname for a directory can be specified
  - but most command lines are CAPS(ON) – cannot enter mixed-case pathnames
- If no parameter is specified with the **UDLIST** command a popup displays:

```

ISRPUDLB          Personal Data Set Lists for UDLIST          List 1 of 7
Command ==>      Scroll ==>3 CSR_
Specify the pathname for a z/OS UNIX directory:
Name . . . . .
Or select a personal data set list as a filter for UDLIST:
Name      Description      Created      Referenced
REFLIST   Last 30 referenced data sets  08/06/10    08/07/17 12:21
OS2DIRLIB UNIX work files           07/05/11    08/02/20 13:54
UNIXISPF  UNIX Development Files/DSS  07/08/22    08/02/20 13:51
WRKSI1    07/05/22    07/08/22 15:16
UDLIST1   07/05/11    07/08/22 15:16
DEMO      ISPF Demo List (SHARE)    05/08/09    07/08/22 15:16
**End**
  
```

- Popup allows user to:
  - enter a mixed-case pathname
  - select a personal list

## Directory List Enhancements – z/OS 1.11

- z/OS UNIX commands can be entered in the command field on the z/OS UNIX Directory List panel
  - Requires option “**Enter z/OS UNIX commands in Command field**” to be selected on the directory list options panel
  - Entering a / (forward slash) in the command field displays a panel with a command field 255 characters in length
- Default line commands can be defined for different file types
  - Default line command is processed when the cursor is placed in the line command field and the ENTER key is pressed
  - IBM-supplied default line commands:
 

Directory	<b>L (List)</b>
Regular file	<b>B (Browse)</b>
Character special	<b>I</b>
FIFO	<b>I</b>
Symbolic link	<b>I</b>
  - User can change default line commands on the “**z/OS UNIX Directory List Default Line Commands**” panel available from the **Options** pull-down

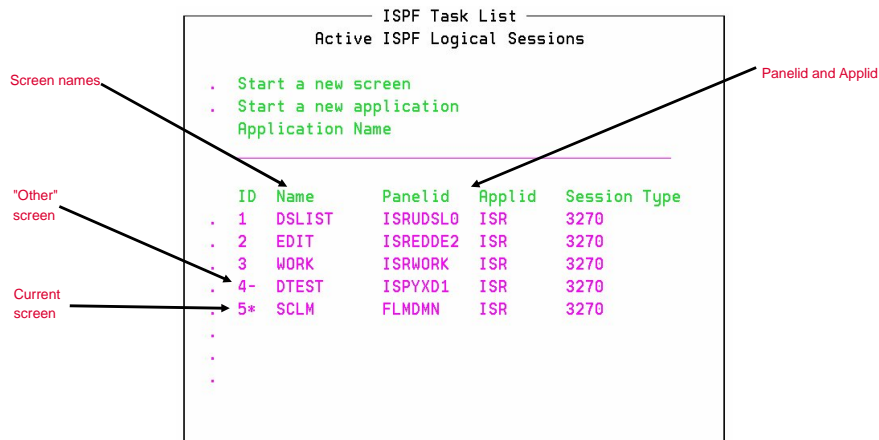
## Using Multiple Screens

- ISPF allows up to 32 synchronously multi-tasking screens under one ISPF session
- Create new logical screens using:
  - **SPLIT [NEW]** command
    - reposition horizontal line separating 2 screens on 3270 display
    - new logical screen created when **NEW** specified
  - **START** command
    - creates new logical screen with different "initial dialog"

```

START PANEL(panel) | PGM(program) | CMD(command)
      [select_parameters]
      | ISPF_command
      | primary_option_menu_option
          
```
- Navigate screens using:
  - **SWAP [LIST | PREV | NEXT | screen name | n]** command
  - ISPF Task List panel (invoked using **SWAP LIST** command)

## ISPF Task List - Swap List Command



## SWAPBAR – z/OS 1.10

- Simplifies the task of swapping between ISPF logical screens
- Displays at the bottom of the physical screen point-and-shoot fields associated with each logical screen for the session
  - Use the point-and-shoot field to invoke the associated logical screen
 

Tip: Customize your terminal emulator to make the action of clicking the mouse to simulate:

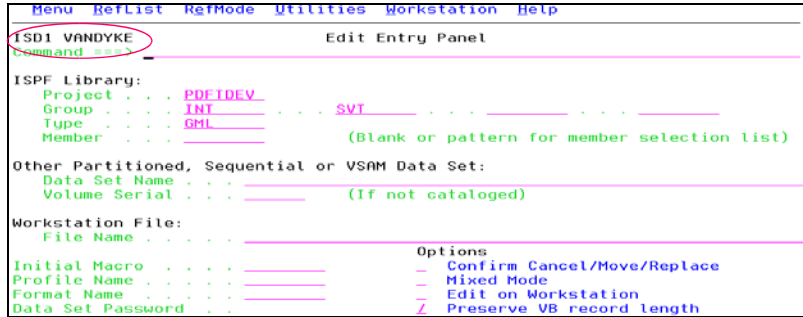
    - 1) placing the cursor
    - 2) Pressing the ENTER key
- Enabled using the new SWAPBAR system command

Syntax: **SWAPBAR [ON|OFF]**

## Display System and User Id – z/OS 1.7

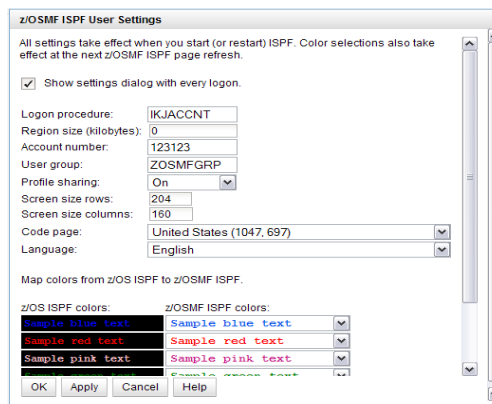
- New ISPF command provided which allow the system name and/or user ID to be displayed on all ISPF panels

- **SYSDNAME [ON|OFF]** - Display | Remove system name
- **USERID [ON|OFF]** - Display | Remove user ID



## ISPF in a Web Browser (Using z/OSMF)

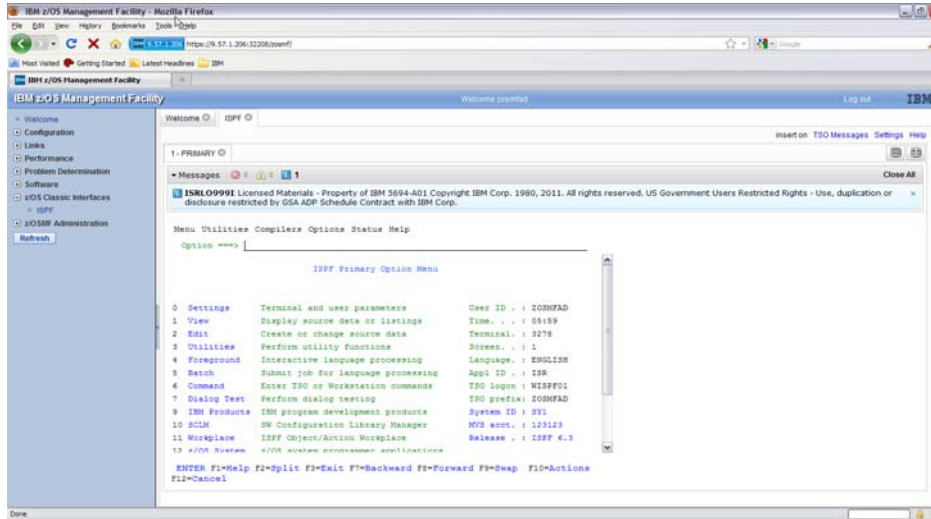
- With z/OS 1.13, z/OSMF users can invoke ISPF in a web browser
- New ISPF task under z/OS Classic Interfaces category
  - Used to launch a “classic” ISPF session in the browser
  - Existing TSO logon procedure is used to define TSO/ISPF environment





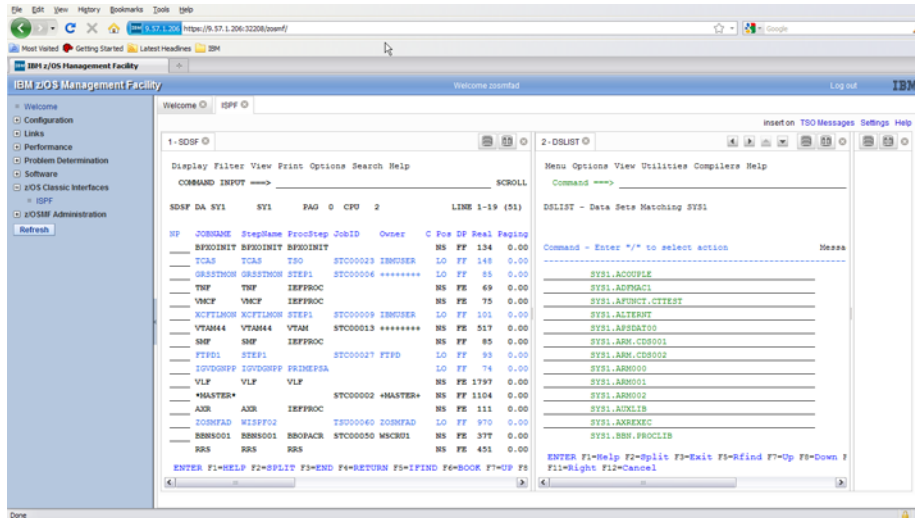
## ISPF in a Web Browser (Using z/OSMF). . .

Panels appear similar to TN3270 ISPF layout



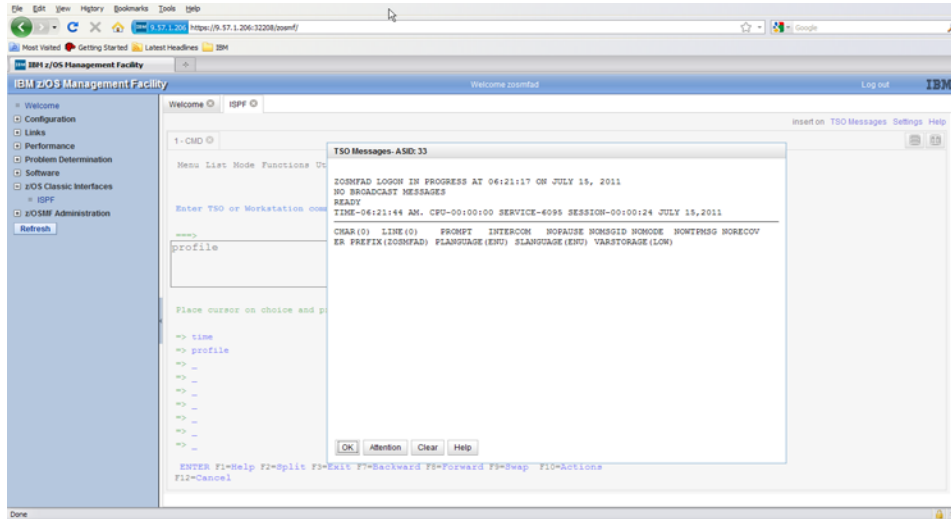
## ISPF in a Web Browser (Using z/OSMF). . .

Can display up to 4 ISPF logical screen in the same browser tab



## ISPF in a Web Browser (Using z/OSMF). . .

- TSO/E messages are displayed in a popup window



## ISPF Client Gateway - ISPF from the Internet

- The Gateway provides an interface for client (and z/OS UNIX) applications to run TSO and ISPF commands and services
- Runs in z/OS UNIX and is invoked upon a request for a TSO or ISPF command
  - TSO address space established
  - If an ISPF command is requested
    - ISPF data sets are allocated and an ISPF session is established
- Command requests and command output in XML format
- Gateway IVP provides a web page for entering TSO and ISPF commands
  - `/usr/lpp/ispf/bin/ISPZIVP.html`
  - `/usr/lpp/ispf/bin/ISPZIVP.cgi`
- Shipped with z/OS 1.10
  - Backfitted to z/OS 1.8 and 1.9 (APAR OA27190)

## ISRDDN Utility

- Fullscreen display of DD allocations
- Build a member list based on a DD
- Invocation: **SELECT PGM(ISRDDN)** - DDLIST command

```

Command ==>> Current Data Set Allocations Row 11 of 214
Scroll ==>> CSR
Volume Disposition Act DDname Data Set Name Actions: B E V N F C I Q
MVS8W0 SHR,KEEP > - ISPILIB PDFTDEV.VANDYKE.GIF
MVS8W1 SHR,KEEP > - PDFTDEV.STG.GIF
MVS8W2 SHR,KEEP > - PDFTDEV.INT.GIF
MVS8W3 SHR,KEEP > - PDFTDEV.SVT.GIF
DMTCAT SHR,KEEP > - ISPLLIB VANDYKE.LOADLIB
MVS4W3 SHR,KEEP > - WDBDEV.LOAD
MVS8W4 SHR,KEEP > - PDFTDEV.VANDYKE.LOAD
MVS8W5 SHR,KEEP > - PDFTOOL.COMMON.LOAD
MVS8W6 SHR,KEEP > - PDFTDEV.STG.LOAD
MVS8W7 SHR,KEEP > - PDFTDEV.INT.LOAD
MVS8W8 SHR,KEEP > - PDFTDEV.SVT.LOAD
MVS8W9 SHR,KEEP > - PDFTOOL.FLM@SCAN.LOAD
S13L8R SHR,KEEP > - SYS1.DFQLLIB
S13L8R SHR,KEEP > - SYS1.DGTLIB
MVS8W0 SHR,KEEP > - ISPLLIB PDFTDEV.VANDYKE.MSGGEN
MVS8W1 SHR,KEEP > - PDFTOOL.COMMON.MSGS
MVS8W2 SHR,KEEP > - PDFTDEV.STG.MSGGEN
MVS8W3 SHR,KEEP > - PDFTDEV.INT.MSGGEN
  
```

- Browse (B), Edit (E), View (V), Free the entire DD (F), Compress a PDS (C), Provide additional data set information (I), Display list of users of jobs using a data set (Q)

## ISRDDN - Primary Commands

- **MEMBER name [string]**
  - scans allocations for a particular member
  - **string** restricts the search to DDs with **string** in their name.
  - Uses CSVQUERY to locate load modules

```

Command ==>> Current Data Set Allocation Member was found
Scroll ==>> CSR
Message Act DDname Data Set Name Actions: B E V N F C I Q
> - ISPILIB PDFTDEV.VANDYKE.GIF
> - PDFTDEV.STG.GIF
> - PDFTDEV.INT.GIF
> - PDFTDEV.SVT.GIF
> - ISPLLIB VANDYKE.LOADLIB
> - WDBDEV.LOAD
> - PDFTDEV.VANDYKE.LOAD
> - PDFTOOL.COMMON.LOAD
Member: ISPSUBS > - PDFTDEV.STG.LOAD
> - PDFTDEV.INT.LOAD
Member: ISPSUBS > - PDFTDEV.SVT.LOAD
> - PDFTOOL.FLM@SCAN.LOAD
> - SYS1.DFQLLIB
> - SYS1.DGTLIB
> - ISPLLIB PDFTDEV.VANDYKE.MSGGEN
> - PDFTOOL.COMMON.MSGS
> - PDFTDEV.STG.MSGGEN
> - PDFTDEV.INT.MSGGEN
  
```

- **ONLY string | EXCLUDE string**
  - to show or exclude DDs with **string** in their name

## ISRDDN - Primary Commands...

- **SEARCH *name***
  - Same as **MEMBER** but does not search DD's
  
- **LOAD *name***
  - Explicitly loads a module
  - Uses ISPLLIB if available
  - Browses result
  
- **APF, LINKLIST (LI), PARMLIB, LPA (LP)**
  - toggle commands to add/remove pseudo-DD names
  - show the defined -
    - APF data sets
    - link-list data sets
    - PARMLIB data sets
    - LPA data sets

## ISRDDN - Primary Commands...

- **CLIST**
  - creates a allocation CLIST in '**prefix.ISRDDN.CLIST**'
  
- **COUNT [*string*]**
  - counts the number of members in PDSs
  
- **DUP**
  - searches all the PDSs in the displayed list and LPA
  - displays list of duplicate names
  
- **ENQ**
  - Enqueues on system
  
- **CON**
  - Enqueue contention

## ISRDDN - Browse of Control Blocks

- BROWSE STORAGE
  - SEQUENTIAL FILE
    - Allocated to DDNAME ISRDDN
    - Fixed or VB
    - Max length of 230
      - ♦ First string on line is control block name
    - Second string is locator string
    - Everything else ignored

```

ASCB  CVT?+C?   Addr space control blk
CVT   10.?     Comm Vector Table
TCB   CVT??    Task Control Block
  
```

- Disassembly support available with z/OS 1.9

**NOTE:** ISRDDN is now documented in the [ISPF User's Guide Volume I](#)

## User Command Tables

- ISPF supports up to 3 user command tables (z/OS 1.5)
  - APPLID for User command tables are defined in the ISPF configuration table
  - Searched before Site and System command tables
- Many sites now define USER as the APPLID for a User command table
  - Speak to your systems programmer if your site does not
  - Allows users to define their own ISPF commands
  - User command table saved in a personal table data set in the ISPTLIB DD concatenation
- Creating and updating user command tables
  - Option 3.9 can be used to create a user command table
    - Requires table data set allocated to the ISPTABL DD
  - Option 3.9 cannot update a user command table if it is open to your ISPF session
    - Copy table to another member; use option 3.9 to update new member; copy updated member back
    - With z/OS 1.9, use option 3.16 (ISPF Table Utility)

## ISRDTLCV Macro

- Shipped in SISPEXEC library
- Converts the non-displayable characters in panel output from the DTL Conversion Utility (ISPD TLC) to editable characters
- Issue **ISRDTLCV** on edit command line of generated panel